Periscope.

With the Assistance of the Following Collaborators:

Chas. Lewis Allen, M.D., Wash., D.C.
J. S. Christison, M.D., Chicago, Ill.
A. Freeman, M.D., New York.
S. E. Jelliffe, M.D., New York.
Wm. C. Krauss, M.D., Buffalo, N.Y.
W. M. Leszynsky, M.D., New York.
R. K. Macalester, M.D., N.Y.
J. K. Mitchell, M.D., Phila., Pa.
B. Onuf, M.D., Brooklyn, N.Y.
H. Patrick, M.D., Chicago, Ill.
H. L. Shively, M.D., New York.
A. Sterne, M.D., Indianapolis

ANATOMY AND PHYSIOLOGY.

The Electrical Resistance of the Human Body. By Prof. Spehl and Dr. Sano. Journal de Neurologie et d'Hypnologie, No. 4.

By means of an ingenious apparatus, which gave very uniform, reliable results, the authors measured the resistance of the body to the galvanic current. The average found for healthy individuals was 1340 ohms. A slight increase in the resistance was found in diseases generally, but particularly in patients affected with nervous diseases. In one and the same disease great variations were noted in tubes for instance from 1600 to 4073 ohms. The authors find that according to their figures no constant relation exists between a given disease and the resistance stated in it, that accordingly *the electrical resistance cannot be used as a criterion for making a precise diagnosis of a nervous disease.* They deny that the electrical resistance is diminished in Graves' disease, noting even a slight increase instead.

Very marked and the most constant variations were shown to be produced by variations of the percentage of sodium chloride in the system. In one of the experimenter's, whose average resistance is 1450 ohms, this resistance went down to 1120 after the ingestion of 4 grammes of sodium chloride.

Sodium chloride solutions of from 5 pro mille to 10 pro mille concentrations were more sensative in that regard than solutions of the strength of from 5 to 10 per cent.; that is, a slight variation of the former concentration modified the resistance in much higher degree, than variations of the latter percentage. It is interesting to note in this regard, that the average concentration of the sodium chloride in the human economy—5-10 pro mille—coincides with that concentration which is especially sensitive to increase or diminution of the electrical resistance by slight variations in the amount of the salt. This factor, the authors say, plays such an important part, that it may perhaps even be the principal cause of the variations of the resistance in diseases. In tabes, for instance, the crisis gastriques may so alter the nutrition, and consequently the chemical composition of the tissues, that this alone might explain the high figures (4073 ohms, etc.) found in some tabetics.

Onuf.

A STUDY OF PAIN.

H. Meige gives an abstract from Charles Richet's "Etude Biologique sur la Douleur" (Jour. de Neurologie et d'Hypnologie, 1896), of which the following is a summary: Pain is produced by strong excitations. All abnormal states provoke pain. The persistent memory of a painful excitation is one of the fundamental characteristics of pain. Pain is in relation with the finality of beings; this is the only psychological preventative defense. Living beings divide themselves into two groups as to preventative defense against dangers. Some fortify themselves by instinct; they have not painful sensations, and they are not able to modify their acts in the face of the unexpected. Others fortify themselves by intelligence. They have the comprehension of pain and have no wish to expose themselves to it. To suppress pain and its recollection would be to reduce human consciousness almost to nothingness. MITCHELL.

PARALYTIC INFLUENCE OF ATROPINE UPON THE GLUCOSECRETORY NERVES OF THE LIVER.

Cavazzini and Soldaini conclude their experimental researches as follows: That atropine exerts a paralyzing action upon the nerves of the cœliac plexus; that these regulate the production of sugar in the liver; that the production of glucose must be regarded as a true secretion, and the corresponding nerve fibres must be regarded as the true glyco-secretory fibres. KRAUSS.

NEURO-PATHOLOGY.

TWO CASES OF CONGENITAL, SPASTIC RIGIDITY (LITTLE'S DISEASE) WITH AUTOPSY. Comptes Rendus Hebdomadaires des Séances de la Société de Biologie, March 31, 1897. By J. Dejerine.

Case 1. The patient had been born at term and had been paretic in the lower extremities since early infancy. When examined at the age of seventy-nine he presented spastic paraplegia of moderate intensity without atrophy, and was able to walk with a cane. The patellar reflex was exaggerated. The upper limbs and face were not affected. Sensation and the action of the sphincters were normal. Intelligence was of the average degree. Since infancy the patient had been subject to epileptic attacks. There was a cavity in each hemisphere which communicated with the lateral ventricle; the one on the right side was situated at the junction of the middle and lower thirds of the fissure of Rolando, while the one on the left was at the junction of the superior and middle thirds of the corresponding fissure. The convolutions converged toward the crateriform depressions. There was no degeneration of the cerebral peduncles or any part of the oblongata or cord. In the lateral columns of the cord and in the pyramids there was an overgrowth of the neuroglia, which may have been due to the advanced age of the patient.

Case 2. The patient was born at term and was said to have presented rigidity at birth. The first years of life were passed in bed, but about the age of nine or ten the arms began to be less stiff, and the patient was able to walk with crutches. There were no epileptic attacks in this case. At the age of forty-four the intelligence was below the normal, and there was spastic paralysis of all four limbs, more marked in the lower, and especially on the left side. The left lower limb was smaller than the right. The patellar reflexes, especially the left, were exaggerated, and ankle clonus was observed on the left side. The power of movement was slight in the lower limbs, and walking was only possible with crutches. The man walked as if without joints (*tout d'une pièce*) in swinging the lower limbs. The arms could be moved more freely, but still very imperfectly, and the left was atrophied. The olecranon reflexes were exaggerated, and the contractures were greater in the left limb. Sensation and the sphincters were not affected.